



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7505P)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

EPA Reg. Number:

83529-177

Date of Issuance:

2/10/22

NOTICE OF PESTICIDE:

☒ Registration
☐ Reregistration
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

SHARDA PROPANIL 44.8% EC

Name and Address of Registrant (include ZIP Code):

Ogongi Ogongi
Sharda USA LLC
c/o Wagner Regulatory Associates, Inc.
P.O. Box 640
Hockessin, DE 19707

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Emily Schmid

Emily Schmid, Product Manager 25
Herbicide Branch, Registration Division (7505P)

Date:

2/10/22

2. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, “EPA Reg. No. 83529-177.”
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 04/19/2021

If you have any questions, please contact Aleah Holt at 202-566-2791 or by email at holt.aleah@epa.gov.

Enclosure

[MASTER LABEL]

ACCEPTED**2/10/2022**Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No.**83529-177****PROPANIL GROUP 7 HERBICIDE****Sharda Propanil 44.8% EC****ABN: Orissa 4****For Post-Emergence Weed Control in Rice.****ACTIVE INGREDIENT:**Propanil: 3',4'-dichloropropionanilide **WT. BY %** 44.8%**OTHER INGREDIENTS:** **55.2%****TOTAL:** **100.0%**

Contains 4 lbs./gal. of propanil.

KEEP OUT OF REACH OF CHILDREN**WARNING/AVISO**Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.
(If you do not understand this label, find someone to explain it to you in detail.)**FIRST AID****IF SWALLOWED:**

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- **DO NOT** induce vomiting unless told to do so by a poison control center or doctor.
- **DO NOT** give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 - 20 minutes.
- Call a poison control center or doctor for treatment advice.

IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible.
- Call a poison control center or doctor for further treatment advice.

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15 - 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

HOTLINE NUMBERHave the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call your poison control center at **1-800-222-1222**.

[Optional referral statements when booklets and container labels are used:]

[See label booklet for [complete] [additional] [First Aid,] [Precautionary Statements], [Directions For Use], and [Storage and Disposal].]

Manufactured for:

Sharda USA LLC7217 Lancaster Pike, Suite A
Hockessin, Delaware 19707**EPA Reg. No. 83529-XXX****EPA Est. No. XXXXX-XX-XXX****Net Contents: _____ Gals. [L.]**

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

WARNING

May be fatal if swallowed. Harmful if absorbed through skin. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Avoid contact with skin, eyes or clothing. Wear long-sleeved shirt and long pants, socks, shoes, and chemical-resistant gloves. Remove and wash contaminated clothing before reuse.

[Editor's Note: The language in this PPE section will be included on the label if the product is packaged without a built-in probe.]

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate and butyl rubber ≥ 14 mils.

Mixers, loaders, applicators, and other handlers must wear the following, except when removing an unrinsed probe:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Viton ≥ 14 mils
- Chemical-resistant footwear plus socks
- Protective eyewear (goggles or face shield)

Chemical-resistant gloves made of barrier laminate, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Viton ≥ 14 mils and Chemical-resistant apron when mixing/loading, cleaning up spills or equipment, or otherwise exposed to this product.

In addition, handlers must wear chemical-resistant footwear when cleaning up spills or equipment.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS

Mixers and loaders must either:

- Use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for dermal protection of agricultural pesticides [40 CFR 170.240(d)(4)]; or
- Use the probe system described below.

Probe System

Specific requirements for use of the probe closed mixing/loading system:

- Remove plug from bung of drum containing this product only when drum is sitting on the ground or on a secure level platform with the bung end of the drum pointed up.
- **DO NOT** pour this product from its drum.
- Transfer product from the drum to the mixing tank by use of a suction hose connected at 1 end to the suction pump on the mixing tank and connected at the other end to a probe (dip tube) that is inserted through the bung opening into the drum.
- **DO NOT** handle the probe or bung in a manner that will allow dripping or splattering of the product onto yourself or any other person.
- **DO NOT** touch the portion of the probe that has been in contact with this product until after the probe has been triple rinsed with water.
- If all of the product is removed from the drum, then triple rinse the probe while it remains inside the drum.

Unrinsed Probes

If an unrinsed probe must be removed from the drum, then use an anti-drip flange and immediately transfer the probe into a container of rinse water. The anti-drip flange must be designed to remove excess propanil product from the probe as it is extracted from the drum.

Take the following steps if the probe must be disconnected from the suction hose before both the probe and the hose have been triple rinsed:

- Equip the probe end of the hose with a shut off valve.
- Install a dry break coupling between the valve and the probe.
- Close the shut off valve before disconnecting the probe.

Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers. Pilots must use an enclosed cockpit that meets the requirements listed in WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

[Editor's Note: The language in this PPE section will be included on the label if the product is not packaged with a built-in probe.]

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are barrier laminate and butyl rubber ≥ 14 mils.

Mixers, loaders, applicators, and other handlers must wear the following, except when removing an unrinsed probe:

- Coveralls over long-sleeve shirt and long pants
- Chemical-resistant gloves made of barrier laminate, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Viton ≥ 14 mils
- Chemical-resistant footwear plus socks
- Protective eyewear (goggles or face shield)

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS

Mixers and loaders must use a closed system that meets the requirements listed in the Worker Protection Standards (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)] for dermal protection and must:

- Wear the personal protective equipment required in the PPE section of this label for mixers and loaders.

Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers. Pilots must use an enclosed cockpit that meets the requirements listed in WPS for agricultural pesticides [40 CFR 170.240(d)(6)].

All systems must be capable of removing the pesticide from the shipping container and transferring it into mixing tanks and/or application equipment. At any disconnect point, the system must be equipped with a dry disconnect or dry couple shut off device that is warranted by the manufacturer to minimize dripage.

USER SAFETY RECOMMENDATIONS

Users must:

- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to fish and aquatic invertebrates.

This pesticide is toxic to birds.

DO NOT apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high-water mark.

DO NOT use when weather conditions favor drift from the area treated.

DO NOT use where runoff is likely to occur. Drift and runoff from treated areas may be hazardous to aquatic organisms in adjacent aquatic sites.

DO NOT contaminate water when disposing of equipment wash waters or rinsate. Use this product only as specified on this label.

Groundwater Advisory

Propanil and 3,4-DCA (a major propanil degradate) are known to leach through soil into groundwater under certain conditions as a result of label use. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Non-Target Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

ENDANGERED SPECIES PROTECTION

This product may have effects on endangered species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county in which you are applying product. To obtain Bulletins, no more than 6 months before using this product, consult: [<https://www.epa.gov/endangered-species/endangered-species-protection-bulletins>] or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

If endangered plant species occur in proximity to the application site, the following mitigation measures are required: Leave an untreated buffer zone of 200 feet. This product must be applied using a low boom (20 inches above the ground) and ASAE fine to medium/coarse nozzles. To determine whether your county has an endangered species, consult the following website: [<https://www.epa.gov/endangered-species/endangered-species-protection-bulletins>]

Endangered Species Bulletins may also be obtained from extension offices or State pesticide agencies. If the bulletin is not available for your specific area, check with the appropriate local State agency to determine if known populations of endangered species occur in the area to be treated.

PHYSICAL/CHEMICAL HAZARDS

Combustible. **DO NOT** use or store near heat or open flame.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

DO NOT enter or allow other people or pets to enter the treated area until sprays have dried.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **24 hours**.

Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, including plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made out of barrier laminate, Nitrile Rubber ≥ 14 mils, Neoprene Rubber ≥ 14 mils, Viton ≥ 14 mils
- Chemical-resistant footwear plus socks
- Protective eyewear

PRODUCT INFORMATION

For Rice Grown in the Following States: Arkansas, Florida, Kansas, Louisiana, Mississippi, Missouri, South Carolina, and Texas

Sharda Propanil 44.8% EC is a herbicide for post-emergence weed control in rice and is formulated as an emulsifiable concentrate containing 4 lbs. active ingredient per gallon. **Sharda Propanil 44.8% EC** kills susceptible weeds by direct contact action, not hormonally. For this reason, thorough spray coverage of emerged weeds is crucial for best results. **Sharda Propanil 44.8% EC** has no pre-emergence or residual herbicidal activity in soil. Only weeds that have emerged and are exposed at time of treatment will be controlled. Make an application of **Sharda Propanil 44.8% EC** only to fields that have been drained of floodwater. **Sharda Propanil 44.8% EC** is most effective if applied when susceptible grasses and broadleaf weeds are small and growing actively under favorable soil moisture and weather conditions. Early weed control removes weed competition from the rice crop, saves moisture, and generally contributes to increased yields.

Read the **TANK MIXES** and **Application Equipment** sections prior to treatment. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Crop Safety

All leading commercial varieties of rice are exceptionally tolerant to **Sharda Propanil 44.8% EC**. A temporary yellowing or tip burn of rice may be noticed after application, but new growth is normal. Severe leaf burn and partial killing of rice may occur if the product is applied when rice is under stress and in a weakened growth condition due to disease or insect infestations, excessive soil salts, overwatering, or prolonged drought and extremely hot weather. Growers are cautioned not to spray under such conditions and/or when maximum daily temperatures have been or are expected to exceed 100°F.

USE RESTRICTIONS

- **DO NOT** apply in winds above 10 miles per hour.
- **Pre-Harvest Interval:** **DO NOT** apply this product within 60 days of rice harvest.
- **Chemigation:** **DO NOT** apply this product through any type of irrigation system.
- **DO NOT** apply more than a maximum of 6 quarts (6 lbs. active ingredient) of **Sharda Propanil 44.8% EC** per acre in a single application or exceed 8 quarts (8 lbs. active ingredient) of **Sharda Propanil 44.8% EC** per acre total dosage per year.
- **DO NOT** apply this product to any crop other than rice.
- **DO NOT** apply this product (directly or indirectly) to wild rice (*Zizania* spp.).
- **DO NOT** allow drift or accidental application from turning aircraft on beans, cotton, soybeans, corn, safflower, seedling legumes, cucurbits, vegetables, orchards, vineyards, gardens, shrubs, and ornamentals. Once applied, **Sharda Propanil 44.8% EC** does not

release fumes hazardous to nearby crops.

- **DO NOT** apply to fields where catfish farming is practiced or drain water from treated fields into areas where catfish farming is practiced during 12 months following treatment.
- **DO NOT** graze treated fields or feed treated forage within 60 days of the last application.
- **DO NOT** plant or transplant crops in the treated area for at least 60 days following an application of this product.
- **DO NOT** rotate treated land to other crops or transplant to crops other than rice for 60 days following treatment of this product.
- **DO NOT** apply this product within 14 days prior to or after carbamate or organophosphate insecticide applications. Otherwise, serious injuries to rice may occur.
- **DO NOT** drain water from treated rice fields to ponds to be used to irrigate other crops or release within 2 miles upstream of a potable water intake in flowing water (e.g., river, stream, etc.) or within 2 miles of a potable water intake in a standing body of water, including a lake, pond, or reservoir.

Emergency Release Provision

Water holding (discharge) intervals for flood water from treated rice paddies following treatment in all states:

- **For Delayed Flood (Water-Seeded) Rice Grown South of Interstate Highway 10 from the Texas/Louisiana border to Houston and east of State Highway 35 from Houston to Port Lavaca** – Flood water must be held for 10 days after treatment unless excessive rainfall completely submerges the rice crop and forces premature release. For Texas rice grown in areas north or west of these boundaries, the water holding interval is 7 days.
- **For Delayed Flood (Water-Seeded) Rice in Southern Louisiana South of Highway 14** – Flood water must be held for 15 days after propanil treatment unless excessive rainfall completely submerges the rice crop and forces premature release. For delayed flood (water-seeded) rice in Louisiana, north of the Highway 14 boundary, the water holding interval is 7 days.
- **For Rice in California and All Other Parts of the United States Not Mentioned Above** – Flood water must be held for 7 days after application unless excessive rainfall completely submerges the rice crop and forces premature release.

EFFECT OF CLIMACTIC CONDITIONS AND CULTURAL PRACTICES ON WEED CONTROL

Field and Seedbed Preparation

Fields must be accurately leveled and contoured and have well-prepared seedbeds free of clods. Such conditions encourage uniform and rapid emergence of rice, grass, and broadleaf weeds, allowing more accurate timing and coverage of sprays of **Sharda Propanil 44.8% EC** for optimum weed control.

Water Management

Prior to treatment of **Sharda Propanil 44.8% EC**, drained or dry planted fields must be flushed as often as necessary to prevent drying and crusting. Flushing encourages uniform emergence and vigorous growth of grass, broadleaf weeds, and rice, which is essential for optimum weed control. Flushing of fields must occur when weeds and rice are actively growing at time of treatment. Make sure the field is drained before application so that grasses and broadleaf weeds are fully exposed. Weeds that are partially submerged in standing water at time of application will not be satisfactorily controlled.

Treated fields must be flooded prior to a second infestation of grass develops. To prevent additional grass weed seed from germinating, rice fields must be flooded within 24 hours after spraying, or as soon as possible after 24 hours.

Temperature

The temperature a few days prior to and after treating **Sharda Propanil 44.8% EC** have an important effect on the weed killing activity. The activity increases as daily maximum temperatures increase above 75°F and decreases as the daily maximum temperatures decline below 75°F. **DO NOT** apply **Sharda Propanil 44.8% EC** when maximum temperatures have been or are expected to stay below 65°F or exceed 100°F. Less than optimum temperature at time of treatment is not critical so long as the temperature exceeds 75°F during the day.

Relative Humidity and Rain

Grasses and weeds are more responsive to **Sharda Propanil 44.8% EC** during periods of high humidity when the foliage is moist or covered by dew. When the humidity is very low, spray tends to evaporate prior to reaching weed foliage. For best results under low relative humidity conditions, increase spray volume to 12 - 15 gals. per acre. **DO NOT** spray if rain is expected within 8 hours to avoid loss of deposited spray and herbicide adsorption by the weeds.

Wind

DO NOT apply when the wind speed exceeds 15 mph to avoid drift hazard to sensitive crops and the possibility of uneven (streaked) applications.

RESISTANCE MANAGEMENT

PROPANIL	GROUP	7	HERBICIDE
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Sharda Propanil 44.8% EC contains propanil and is classified as a Group 7 herbicide. Any weed population may contain or develop plants naturally resistant to **Sharda Propanil 44.8% EC** and other Group 7 herbicides. The resistant biotypes may dominate the weed population if this group of herbicides are used repeatedly in the same fields. Appropriate resistance-management strategies must be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of **Sharda Propanil 44.8% EC** or other Group 7 herbicides within a growing season, or among growing seasons, with different groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group that are equally effective on the target weeds when such use is

permitted; where information on resistance in target weeds species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.

- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Fields should be scouted after application to verify that the treatment was effective.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Suspected herbicide-resistant weeds may be identified by these indicators:
 - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 - A spreading patch of non-controlled plants of a particular weed species; and
 - Surviving plants mixed with controlled individuals of the same species.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or integrated weed-management recommendations for the specific crops and weed biotypes.

Report any incidence of non-performance of this product against a particular weed species to your local Sharda USA LLC representative. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemical means to remove escapes, as practical, with the goal of preventing further seed production.

MANDATORY SPRAY DRIFT MANAGEMENT

Aerial Applications:

- Do not release spray at height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select the nozzle and pressure that deliver medium or coarser droplets as indicated in manufacturers' catalogues and in accordance with American Society of Agriculture & Biological Engineers Standard S641 (ASABE 641).
- Do not apply when wind speeds exceed 15 mph at the application site. If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- If the windspeed is 10 miles per hour or less, applicators must use 1/4 swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use 3/4 swath displacement upwind at the downwind edge of the field.
- Do not apply during temperature inversions.

Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required select the nozzle and pressure that deliver medium or coarser droplets as indicated in manufacturers' catalogues and in accordance with American Society of Agriculture & Biological Engineers Standard 572 (ASABE S572).
- Do not apply when wind speeds exceed 15 miles per hour at the application site .
- Do not apply during temperature inversions.

Where states have more stringent regulations, they must be observed. The applicator must be familiar with and take into account the information covered in the following **SPRAY DRIFT ADVISORIES**.

SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size – Ground Boom

- **Volume** - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lower spray pressures recommended for the nozzle to produce the target spray volume and droplet size..
- **Spray Nozzles** - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Controlling Droplet Size – Aircraft

- **Adjust Nozzles** - Follow nozzle manufacturers' recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

BOOM HEIGHT - Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

RELEASE HEIGHT – Aircraft

Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

WIND

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

APPLICATION INFORMATION**Application Equipment**

- **Aircraft:** Fixed wing aircraft or helicopters must have well-designed spray systems that produce a uniform pattern of medium-fine spray droplets. Apply **Sharda Propanil 44.8% EC** in no less than 10 gals. of total spray per acre with boom-nozzle sprayers. Increase volume to 12 - 15 gals. per acre for larger or denser stands of grass or during periods of low humidity. The optimum effective spray swath width depends upon operating conditions and type of aircraft being used. For uniform spray coverage with fixed wing aircraft or helicopter, spray swath width must not exceed the width of wingspan or rotor plus 10%. Measure the swaths accurately for flagging.
- **Ground Sprayers:** Use standard low-pressure herbicide boom sprayers equipped with flat fan nozzles. Use nozzle sizes that deliver a medium-fine droplet in 15 - 20 gals. total spray per acre at 40 - 50 PSI and at ground speeds not in excess of 3 - 4 mph. Adjust boom height so nozzle spray patterns meet uniformity. Avoid raising boom too high. Flush all equipment with clear water after each day's use. Clean all equipment using the procedures below, prior to and after spraying other pesticides or other crops.

TANK MIXES

Tank mix applications of **Sharda Propanil 44.8% EC** with other herbicides, insecticides, spray adjuvants or liquid fertilizers may reduce crop tolerance and/or weed control or impair mixing properties. Use of these products in tank mix applications with **Sharda Propanil 44.8% EC** is done at the user's risk. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Adverse Crop Reactions

Rice plants may be severely injured or killed if **Sharda Propanil 44.8% EC** is applied in tank mix combinations or sequentially prior to or after certain insecticides. **DO NOT** tank mix **Sharda Propanil 44.8% EC** with carbamate insecticides including carbaryl, etc., or organophosphorus insecticides (including malathion and methyl parathion, etc.). Consult local extension specialist for current recommendations of approved insecticides on rice.

Restrictions:

- **DO NOT** apply any of the carbamate or organophosphorus insecticides to rice fields within 14 days prior to or after applying **Sharda Propanil 44.8% EC**.
- **DO NOT** apply **Sharda Propanil 44.8% EC** to rice fields planted with rice seed treated with bird repellents containing methiocarb.

SPRAYER CLEAN-UP

Prior to using equipment exposed to this product to treat another crop, clean the sprayer and any other equipment (loading hoses, batch tanks, etc.) using the following procedure:

1. Steam-clean tank using a non-chlorine-based detergent, taking care to remove all physical residues.
2. Thoroughly rinse sprayer, tanks, boom, and hoses with clean water (free of sediment and agricultural chemicals).
3. Fill the tank one-half full with clean water and add Nutrasol at 32 oz. per 100 gals. water. Fill the tank to capacity with clean water. Flush the nozzles, boom, and hoses, and agitate (and recirculate, if possible) the sprayer for 15 minutes. Drain the equipment, taking care to flush the boom and hoses thoroughly.
4. Rinse tanks, hoses, and nozzles with clean water to remove Nutrasol.
5. Fill the tank one-half full with clean water and add 1 gal. 21% ammonia or 7 gals. 3% ammonia per 100 gals. water. Fill the tank

to capacity with clean water. Flush the nozzles, boom, and hoses and agitate (and recirculate, if possible) the sprayer for 15 minutes. Drain the equipment, taking care to flush the boom and hoses thoroughly.

6. Remove nozzles, screens, and strainers, and clean them separately.
7. Rinse tanks, booms, and hoses with clean water.
8. Repeat steps 5 and 7 an additional 3 times.
9. Rinse tanks, booms, and hoses to remove all traces of ammonia.
10. Water rinses may be applied to rice fields. Dispose of bleach rinses at an approved waste disposal facility.

Note: When applying multiple loads of this product several days in a row, the following procedure must be performed at the end of each day – partially fill the tank with fresh water, flush the boom and hoses, and allow to set overnight.

Perform cleanup procedures on batch tanks and any other mixing equipment separately from aircraft hoppers. Take care to clean loading hoses and any other equipment or surfaces exposed to **Sharda Propanil 44.8% EC**.

Restrictions:

- **DO NOT** use chlorine bleach with ammonia. All traces of liquid fertilizer containing ammonia, ammonium nitrate or ammonium sulphate must be rinsed from the mixing and application equipment using water prior to adding chlorine bleach solution. Failure to do so will release a gas with a musty chlorine odor that can cause eye, nose, and throat and lung irritation.
- **DO NOT** clean equipment in an enclosed area.

APPLICATION RATE AND TIMING

Early Timing and Rates

Make an application of **Sharda Propanil 44.8% EC** when a satisfactory stand of rice has been established that will tolerate flooding. The amount of **Sharda Propanil 44.8% EC** to apply depends upon the growth stage and condition of the target weeds. **Sharda Propanil 44.8% EC** is most effective if applied when susceptible grasses and broadleaf weeds are small and actively growing under favorable soil moisture and weather conditions. Use a higher rate in the rate range for heavy weed infestations, weeds in advanced stages of growth, or when growing conditions are less than optimum. Emergency treatments made to weeds in advanced growth stages, including when grass weeds are tillering, must occur at least 60 days prior to harvest.

For best results, apply 3 - 4 qts. (3 - 4 lbs. a.i.) of **Sharda Propanil 44.8% EC** per acre when the grasses are actively growing in the 1- to early 4-leaf stage. This rate will also control many seedling broadleaf and aquatic weeds. Generally, this will be 15 - 25 days after planting.

Mid-Timing and Rates

Apply 4 - 6 qts. (4 - 6 lbs. a.i.) of **Sharda Propanil 44.8% EC** per acre to actively growing grasses in the 4- to 6-leaf and early tillering stage, or when they are in the 2- to 4-leaf stage but stressed under dry soil conditions. Generally, this will be 20 to 30 days after planting.

Rescue Timing and Rates

Apply 5 - 6 qts. (5 - 6 lbs. a.i.) of **Sharda Propanil 44.8% EC** in 12 - 15 gals. of spray per acre for emergency control of older tillering grass. Generally, this will be 30 - 40 days after planting. If the field is already flooded, the water must be lowered or drained prior to spraying to expose more of the grass and weeds. Emergency treatment must be considered as a salvage operation only and cannot be relied upon for total control of grass and weeds.

WEEDS CONTROLLED

Sharda Propanil 44.8% EC provides selective post-emergence control of the following weeds in rice:

Common Name	Scientific Name	Common Name	Scientific Name
Annual Sedge	<i>Cyperus</i> spp.	Junglerice*	<i>Echinochloa colonum</i>
Barnyardgrass*	<i>Echinochloa crus-galli</i>	Mexicanweed	<i>Caperonia castaneifolia</i>
Beakrush (Spearhead)	<i>Rhynchospora corniculata</i>	Paragrass	<i>Panicum purpurascens</i>
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>	Redroot Pigweed	<i>Amaranthus retroflexus</i>
Crabgrass Species	<i>Digitaria</i> spp.	Redweed	<i>Melochia corchorifolia</i>
Curly Dock	<i>Rumex crispus</i>	Rice Flatsedge	<i>Cyperus iria</i>
Foxtail Species	<i>Setaria</i> spp.	Smallflower Umbrella Plant	<i>Cyperus difformis</i>
Goosegrass	<i>Eleusine indica</i>	Spikerush (Wiregrass)	<i>Eleocharis</i> spp.
Gulf Cockspur	<i>Echinochloa crus-pavonis</i>	Texas Panicum	<i>Panicum texanum</i>
Hemp Sesbania (Coffeebean)	<i>Sesbania exaltata</i>	Watergrass*	<i>Echinochloa</i> spp.
Hoorahgrass	<i>Fimbristylis miliaceae</i>	Woolly Croton	<i>Croton capitatus</i>

*In isolated instances, biotypes of barnyardgrass/watergrass may develop that cannot be effectively controlled by propanil alone. Where these biotypes are known or suspected to be present, and are found in a mixed weed population in which **Sharda Propanil 44.8% EC** is effective, tank mix **Sharda Propanil 44.8% EC** at labeled rate with other rice herbicides that are advised for control of barnyardgrass/watergrass (up to the 3-leaf stage).

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

PESTICIDE STORAGE: Ground all metal containers when transferring product. Protect from freezing. If stored below 32°F and crystals form, warm to 72°F for 24 hours, periodically shaking or rolling container to reconstitute. Keep out of reach of children and animals. Store in original containers only. Store in a dry place. Carefully open containers. After partial use, replace lids and close tightly. **Do Not** put concentrate or dilute material into food or drink containers. **In case of spills:** Avoid contact, isolate area, and keep out animals and unprotected persons. Confine spills. Eliminate ignition sources. Ventilate area. Avoid breathing vapors. Use MSHA/NIOSH self-contained breathing apparatus or air mask for large spills in confined areas. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Wash clothing before reuse. Keep out of all sewers and open bodies of water. Refer to **PRECAUTIONARY STATEMENTS. To confine spills:** Dike surrounding area or absorb with sand, cat litter or commercial clay. Place damaged package in holding container. Identify contents.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA region office for guidance.

CONTAINER HANDLING:

[Less Than or Equal to 5 Gallons] [Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill or by incineration, or by other procedures allowed by State and local authorities.]

[Greater Than 5 Gallons] [Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system Repeat this rinsing procedure two more times. Then offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by State and local authorities.]

[Greater Than 5 Gallons] [Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Dispose of empty container in a sanitary landfill or by incineration.]

[For Bulk and Mini-Bulk Containers] [Refillable container. Refill this container with pesticide only. Do not use this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by State and local authorities.]

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER!

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